

BOGNAR, J.

Analytic chemical investigations in ultraviolet light. I. Magdala red as fluorescence indicator in precipitated titration. p.123

MAGYAR KEMIAI FOLYOIRAT. Budapest, Hungary, Vol. 65, no. 3, Mar. 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959  
Uncl.

COUNTRY	: Hungary	E-1
CATEGORY	: Analytical Chemistry--General.	
ABS. JOUR.	: RZKhim, No. 5 1960, No.	17475
AUTHOR	: Bagmar, J.	
INST.	: Hungarian Academy of Sciences	
TITLE	: Chemical Analysis by the Application of UV Light. II. Some New Fluorescent Adsorption Indicators. III. On the Action of Fluorescent Adsorption Indi-	
CRIG. PUB.	: Magyar Kem Folyoirat, 65, No 6, 223-227, 227-235 (1959); Acta Chim Acad Sci Hung, 20, No 1, 103-112;	
ABSTRACT	: II. The author has investigated a series of new fluorescent adsorption indicators (FAI) obtained from acridine derivatives. He has established that ethoxydiaminoacridine lactate in aqueous solution exhibits green fluorescence which disappears in the presence of an excess of halides and reappears when the endpoint is reached in the titration of the halides with a solution of AgNO <sub>3</sub> under UV light of 365 m $\mu$ wavelength. The transition is sharp, reversible, and is most clearly	
CARD:	1/9 * cators. ** No 2, 195-213 (1959)	

COUNTRY	:	Hungary	E-1
CATEGORY	:		
ARS. JOUR.	:	RZKhim, No. 5 1960, No.	17475
AUTHOR	:		
INST.	:		
TITLE	:		
CRIG. PUB.	:		
ABSTRACT	:	observed in the titration of silver thiocyanide. 3 drops of 0.1% ethoxydiaminoacridine lactate per 10 ml of solution to be titrated are used. Trypan Red (p, p'-diaminodiphenyl-m-sulfonic acid → di-2-naphthylamine-3,6-disulfonic acid; Na-salt) by itself fluoresces only weakly; however, the product obtained from its oxidation by Ce(,+) or MnO <sub>4</sub> <sup>-</sup> fluoresces with an intense blue color. The FAI is prepared by adding 0.05 N Ce(SO <sub>4</sub> ) <sub>2</sub> dropwise to a solution of Trypan Red until the red color disap-	
CARD:	2/9	93	

COUNTRY	:	Hungary	E-1
CATEGORY	:		
ART. JOUR.	:	RZKhim, No. 5 1960, No.	17475
AUTHOR	:		
INST.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	color and is a good FAI for the titration of $\text{Ag}^+$ with thiocyanide and vice versa, less effective for $\text{Br}^-$ and $\text{I}^-$ , and completely useless for $\text{Cl}^-$ . Aurazine (diaminodimethylacridine formate) has an intense green fluorescence and is applied in the titration of $\text{Ag}^+$ with thiocyanide (the green fluorescence changes to orange); the medium can be acid (up to pH 1).	
CARD 1 4/9			

94

CLASSIFICATION	: CONFIDENTIAL	E-1
CATEGORY	:	
ABS. JOUR.	: RZhChim., No. 5 1960, No.	17475
AUTHOR	:	
PAGE	:	
TITLE	:	
CRIG. PUB.	:	
ABSTRACT	: III. The mechanism of action of FAI has been investigated. The author notes that the theory of Pajons, developed in explanation of the mechanism of action of adsorption indicators, is applicable only to a limited number of FAI. Frequently the cause for the indicator action of FAI must be sought in acid-base transitions, redox equations, complex formation, etc. Since the majority of FAI also act as acid-base indicators (pH-dependent fluorescence), it is usually assumed that the FAI	
CARD:	5/9	

COUNTRY : Hungary  
CITY :

E-1

ADS. JOUR. : RZhKhim., No. 5 1960, No.

17475

AUTHOR :  
TYPE :  
CLASS :

CARS. FIG. :

ABSTRACT : action follows a similar mechanism (a change in the adsorption of H<sup>+</sup> or OH<sup>-</sup> ions at the endpoint as a result of variations in the surface charge density). The author has shown that a mechanism of the type described does not operate in any of the cases investigated. It has been established that in a number of cases (tripaflavine [sic], ethoxydiaminoacridine lactate, aurazine, Rhodamine 6G, quinine sulfate) in the titration of SCN<sup>-</sup> (or halides) with AgNO<sub>3</sub>, the FAI is adsorbed in the presence of

DATE: 6/9

95

COUNTRY:	:	Hungary	E-1
CATEGORY:	:		
ABS. JOUR.	:	RZKhim, No. 51960, No.	17475
AUTHOR:	:		
TYPE:	:		
TITLE:	:		
ORIG. PUB.:	:		
ABSTRACT:	:	excess SCN <sup>-</sup> and forms with the SCN <sup>-</sup> or halides a salt which exhibits fluorescence of given color or is completely nonfluorescent; in the presence of excess Ag <sup>+</sup> , the FAI is desorbed with reappearance of its characteristic fluorescence in the solution. For a number of other FAI (lactoflavone, Indigosol Blue IBC, Primulin, Thioflavin S, Trypan Red, fluorescein derivatives) the mechanism differs only in that the characteristic fluorescence of the FAI is observed in the presence of	
CARD:	7/9		

COUNTRY	:	Hungary	E-1
CATEGORY	:		
ARS. JOUR.	:	RZKhim, No. 5 1960, No.	17475
AUTHOR	:		
INST.	:		
TITLE	:		
CRIG. PUB.	:		
ABSTRACT	:	excess SCN <sup>-</sup> (or halide); this fluorescence disappears or is changed to a fluorescence of different color in the presence of excess Ag <sup>+</sup> as a result of adsorption and the formation of compounds with Ag <sup>+</sup> . The author has shown by appropriate homogeneous reactions that in the presence of excess Ag <sup>+</sup> (or SCN <sup>-</sup> for the second group of FAI), desorption actually takes place and not adsorption with the binding of the new excess ion. The results obtained also furnish valuable information	
CARD:	8/9	96	"

COUNTRY:	:	Hungary	E-1
CATEGORY:	:		
ARS. JOUR.	:	RZhKhim, No. 5 1960, No.	17475
AUTHOR:	:		
PUB.:	:		
TITLE:	:		
ORIG. PUB.:	:		
ABSTRACT:	:	for the development of a theory of the quenching of fluorescence and confirm, even if only for the cases investigated, the decisive role played by compound formation between the active substance and the quenching agent. For Communication I see RZhKhim, 1960, No 2, 4576.	I. Krishtofori
CARD:	9/9		

BOGNAR, Janos

New catalytic reactions: investigation of their mechanisms and  
their application in trace analysis; a preliminary communication.  
Magy kem folyoir 66 no.8: 331-332 Ag '60.

1. Miskolci Nehezipari Muszaki Egyetem II.sz. Kemial Tanszeke.

BOGNAR, Janos

Present stand and perspectives of kinetic analytical methods.  
Magy kem lap 16 no.6;Supplement:Analitikai Kozlemenek 7 no.2:  
281-286 Je '61.

1. Nehezipari Muszaki Egyetem II.sz.Kemiai Tanszek.

BOGNAR, Janos, a kemiai tudomanyok kandidatusa.

Quantitative methods of catalytic analysis. Kem tud kozl MTA 16 no.2:  
175-205 '61.

1. Nehezipari Muszaki Egyetem, Kemiai Tanszek, Miskolc.

BOGNAR, Janos, prof., dr.; JELLINEK, Olga

Catalytic analysis. II. Detection of submicro amounts of cobalt with the use of the redox system tiron-orcinol-hydrogen peroxide. Acta chimica Hung 29 no.2:131-138 '61.

1. Department for Chemistry, Technical University for Heavy Industry Miskolc, Egyetemvaros, Hungary.

(Catalysts) (Cobalt) (Methylresorcinol)  
(Hydrogen peroxide)

BOGNAR, Janos, pro., dr.; JELLINER, Olga

Catalytic analysis. III. Detection of submicro amounts of cobalt with  
the use of the system tiron-apomorphine-hydrogen peroxide. Acta chimica  
Hung 29 no.2:139-146 '61.

1. Department for Chemistry, Technical University for Heavy Industry,  
Miskolc, Egyetemvaros, Hungary.

(Catalysts) (Cobalt) (Methylresorcinol)  
(Apomorphine) (Hydrogen peroxide)

BOGNAR, Janos, prof., dr.; JELLINEK, Olga

Catalytic analysis. IV. Detection of submicro quantities of cobalt with the use of the system diphenylcarbazone-hydrogen peroxide and tiron-diphenylcarbazone-hydrogen peroxide, respectively. Acta chimica Hung 29 no. 3:251-259 '61.

1. Department for Chemistry, Technical University for Heavy Industry, Miskolc, Egyetemvaros, Hungary.

(Catalysts) (Cobalt) (Systems(Chemistry))

BOGNÁR, János, prof., dr.; SAROSI, Szilvia

Catalytic analysis. VI. New sensitive catalytic reactions for the detection of osmium. (To be contd.) Acta chimica Hung 29 no.4:383-394 '61.

1. Department for Chemistry, Technical University for Heavy Industry, Miskolc, Egyetemvaros, Hungary.

(Catalysts) (Osmium)

BOGNAR, Janos, prof., dr.; SAROSI, Szilvia

Catalytic analysis. VII. Detection of submicro amounts of osmium with the use of the oxidation reaction of 3,3'-dimethyl naphthidine by potassium chlorate. Acta chimica Hung 29 no.4:395-399 '61.

1. Department for Chemistry, Technical University for Heavy Industry, Miskolc, Egyetemvaros, Hungary.

(Catalysts) (Osmium)

BOGNAR, Janos; SAROSI, Szilvia

Catalytic analysis. VI. New sensitive catalytic reactions for  
the detection of osmium. (To be contd). Magy kem folyoir 67  
no.2:193-198 My '61.

1. Miskolci Nehezipari Muszaki Egyetem Kemial Tanszeke.

BOGNAR, Janos; SAROSI, Szilvia

Catalytic analysis. VII. Submicroanalytical detection of osmium by the oxidation of potassium chlorate of 3,3-dimethylnaphthidine. Magy kem folyoir 67 no.2:198-200 My '61.

1 Miskolci Mehezipari Muszaki Egyetem Kemial Tanszeke.

BOGNAR, Janos; JELLINEK, Olga

Catalytic analysis.II.Detection of cobalt in submicro quantity  
by means of the tiron-orcin-H<sub>2</sub>O<sub>2</sub> redoxy system. Magy kem  
folyoir 67 no.3:100-103 Mr '61.

1. Nehezipari Muszaki Egyetem Kemial Tanszeke, Miskolc.

BOGWAR, Janos; JELLINEK, Olga

Catalytic analysis.III. Detection of cobalt in submicro quantity  
by means of the tiron-apomorphine- $H_2H_2$  system. Magy kem folyoir  
67 no.3:103-106 Mr '61.

1. Nehezipari Muszaki Egyetem Kemial Tanszeke, Miskolc.

BOGVAR, Janos; JELLINEK, Olga

Catalytic analysis. IV. Submicroanalytical detection of cobalt ion by means of diphenylcarbazone-H<sub>2</sub>O<sub>2</sub>, that is tiron-diphenyl-carbazone-H<sub>2</sub>O<sub>2</sub> system. (To be contd.) Magy kem folyoir 67 no.4: 143-147 Ap '61.

1. Nehezipari Muszaki Egyetem Kemial Tanszke, Miskolc,

BOGNAR, Janos; JELLINEK, Olga

Catalytic analysis.V.Data on the reactions of cobalt with  
perborate-alizarin, and alizarin derivatives. Magy kem folyoir  
67 no.4:147-151 Ap '61.

1. Nehezipari Muszaki Egyesem Kemial Tanszke, Miskolc.

BOGNAR, Janos

Application of catalytic and induced reactions in trace analysis.  
Magy kem lap 17 no.6:282-288 Je '62.

1. Nehezipari Muszaki Egyetem II.szamu Kemial Tanszek, Miskolc.

BOGNAR, János; JELLINEK, Olga

Catalytic analysis. I. Detection of cobalt in submicro quantity by means of the tiron-H<sub>2</sub>O<sub>2</sub>, i.e. tiron-2,7-dioxynaphthalene-H<sub>2</sub>O<sub>2</sub> reaction. (To be contd.) Magy kem folyoir 67 no.2:73-78 F '62.

1. Nehezipari Műszaki Egyetem Kemiai Tanszeke, Miskolc.

BOGNAR, Janos; JELLINEK, Olga

Catalytic analysis.VIII. Determination of cobalt in submicro quantity by diphenyl-carbazone - H<sub>2</sub>O<sub>2</sub>, that is diphenyl-carbazone-tiron - H<sub>2</sub>O<sub>2</sub> reaction with the aid of Pulfrich photometer. (To be contd.) Magy kem folyoir 68 no.2:49-53 F '62.

1. Nehezipari Muszaki Egyetem Kemial Tanszeke, Miskolc.

BOGNAR, Janos; SAROSI, Szilvia

Catalytic analysis. IX. Detection of osmium in submicro quantity  
on the basis of its activating effect exerted on chlorate ion.  
Magy kem folyoir 68 no.2:53-54 F '62.

1. Nehezipari Muzaaki Egyetem Kemiasi Tanszeke, Miskolc.

KRONROD, A.Sz. [Kronrod, A.S.]; BOGNAR, Janos [translator]

On the functions of two variables. I. (To be contd.) Mat kozl MTA  
12 no.4:361-386 '62.

KRONROD, A. Sz. [Kronrod, A.S.]; BOGNAR, Janos [translator], a matematikai  
tudomanyok kandidatusa

Functions of two variables. Pt. 3. Mat kozl MTA 13 no.2:179-  
223 '63.

BOGNAR, Janos, prof., dr. (Miskolc, Egyetemvaros, Hungary); JELLINEK,  
Olga (Miss) (Miskolc, Egyetemvaros, Hungary)

Catalytic analysis. VIII. Acta chimica Hung 35 no.1:13-21 '63.

1. Department of Chemistry, Technical University of Heavy  
Industry, Miskolc, Hungary.

BOGNAR, Janos, prof., dr. (Miskolc, Egyetemvaros, Hungary); SAROSI,  
Szilvia (Miss) (Miskolc, Egyetemvaros, Hungary)

Catalytic analysis. IX. Acta chimica Hung 35 no.1:23-27 '63.

1. Department of Chemistry, Technical University of Heavy  
Industry, Miskolc, Hungary.

BOGNAR, Janos

Method for the determination of the analytic utilization of high-temperature catalytic reactions. Magy kem folyoir 69 ne.7:320-323 Jl '63.

1. Nevezipari Muszaki Egyetem Kemial Tanszeke, Miskolc-Egystemvares.

BOGNAR, Janos, tanszekvezeto egyetemi tanar.

History of teaching chemistry in our college. Borsod szemle  
7 no.6:55-62 '63.

BOGNAR, Janos; SAROSI, Szilvia

Determination of iodide on the basis of its catalytic effect developed  
in the Ce(IV)-AS(III) reaction by means of the simultaneous compara-  
tive method. Magy kem folyoir 69 no.7:317-320 Jl '63.

1. Neheziapri Muszaki Egyetem Kemial Tanszeke, Miskoc-Egyotemvaros.

KECSKES, Lajos; SZEHEDAY, Zoltan; BOGNAR, Janos; PANKA, Jozsef; IGAZI,  
Karoly.

Fractionation of urinary 17-ketosteroid extracts using paper  
chromatography. Kiserl. orvostud. 16 no.2:157-163 Ap'64.

1. Pecsi Orvostudomanyi Egyetem Szuleszeti es Nogyogyaszati  
Klinikaja.

BOGNAR, Janos; NAGY, Lajos

Indirect agentometric and mercurimetric determination of  
fluorion by potentiometric or redoxy end-point indication.  
Magy kem folyoir 65 no. 9:335-341 S '59.

1. Nehezipari Muszaki Egyetem II. szamu Kemial Tanszeke,  
Miskolc.

BOGNAR, Janos

Processes of analysis based on catalytic effects. Magy kem lap 19  
no.9:489-496 S '64.

1. Heavy Industry University, Miskolc.

BOGNAR, János, Dr., associate professor

Magyar Tudományos Akadémia

Budapesti Műszaki Egyetem, Széchenyi István Kollégium  
Lapja 97, no. 24700 Budapest

J. Hant, Chair of Chemistry, Technical University of Heavy  
Industry, Miskolc.

ILLEI, Gyorgy; BOGNAR, Janos, dr.

Significance of endometrial cystic glandular hyperplasia. Orv.  
hátil. 105 no.44:2083-2087 1 N '64.

1. Pecsi Orvostudományi Egyetem, Szülezeti és Nőgyógyaszati  
Klinika (igazgató: Lajos László dr.).

BOGNAR, J.

Some connections between the properties of non-negativity  
of operators in spaces with indefinite metric. Mat kut  
kozl MTA 8 A series no.1/2:201-212 '63.

BOGNAR, Jeno

Characteristics of shallow-water ship resistance and methods  
for their determination. Jarmu mezo gep 4 no.3:105-116 Jl '57.

BOGNAR, Jozsef

The production of ion-exchanging synthetic resins in Hungary.  
Musz elet 17 no.3:12 F '62.

BOGNAR, Jozsef, egyetemi tanar

How can demand be calculated by a mathematical method? Elet  
tud 15 no.33:1027-1030 14 Ag '60.

BOGNAR, Jozsef

The state of our intermediary production of drugs. Musz elet 15  
no.20:7 S '60.  
(Hungary--Drugs)

LEGRADI, Laszlo; BOGNAR, Jozsef

Oxidation of o-nitroethylbenzene with nitric acid.  
Magy kem folyoir 66 no.11:460-461 N '60.

1. Veszprem Megyei Festekgyar, Fuzfogyartelep.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205920001-2

BOGNAR, Jozsef

"The Hungarian Pharmaceutical Industry Today," by Jozsef BOGNAR, MAGYAR TUDOMANY (Hungarian Science), Budapest, Vol. LXVII, No. 5-6, May-June 1960, Uncl.

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205920001-2"

COUNTRY : GDR H-17  
CATEGORY :  
ABS. JOUR. : RZKhim., No. 21 1959, Jo. 75780  
AUTHOR : Kedvessy, G. and Bognar, K.  
: Not given  
TITLE : The Application of Phenylmercuric Borate in  
Parenteral Solutions  
ORIG. PUB. : Pharmaz Zentralhalle, 97, no 12, 573-580 (1958)  
ABSTRACT : The antibacterial action of 'Merfen' (I) at  
1 : 50,000 dilutions on St. aureus, E. coli,  
B. anthracis, A. niger, B. subtilis, and Clos-  
tridium Sp. in Ringer solution (pH 7.2), in  
acidified 10% glucose solution (pH 3.6), and  
5% sodium phenobarbital solution, has been in-  
vestigated. Complete sterilization of the prep-  
arations was observed in all cases on heating to  
100° for 30 min. At about 40° I acts bacteri-  
cidally in some cases and bacteriostatically  
in others.

A. Travin

CARD: 1/1

HUNGARY / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6456  
Author : Bognar, Karoly  
Inst : Not given  
Title : The Pressing Problem of Fertilizing Vineyards  
Orig Pub : Agrartudomany, 1957, 9, No 10, 24-27  
Abstract : This is a brief review of references on the  
problem of fertilization of vineyards.

Card 1/1

149

BOGNAR, Karoly; KÖZMA, Ferenc

On the micrometeorological investigation of joint grapefruit  
growing. Idojaras 65 no.6:366-369 D '61.

SIMONYI, Erzsebet, dr.; BOGNAR, Karoly, dr.; KUCSERA, Gyorgy, dr., az  
allatorvostudomanyok kandidatusa; REGOS, Gyula, dr.

Comparative efficiency tests of crystal violet vaccines. Magy  
allatorv lap 17:34-36 S '62.

1. Allatgyogyaszati Oltoanyagellenorzo Intezet, Budapest.

BOGNAR, Karoly, dr.

Comparative analysis of the lapinized swine pest virus strains of  
different origins. Magy allatorv lap 17:36-38 S '62.

1. Allatgyogyaszati Oltoanyagellenorzo Intezet, Budapest.

BOGNAR, K.; MESZAROS, J.

Experiences with a lapinized hog cholera virus strain of virulence. Acta veter Hung 13 no.4:429-438 '63.

1. Institute for the Control of Veterinary Serobacteriological Products (Director:Elisabeth Simonyi), and Veterinary Medical Research Institute (Director:J.Meszaros) of the Hungarian Academy of Sciences, Budapest.

HUNGARY

KOHALI, Katalin, Dr., MESZAROS, Janos, Dr.; Veterinary Vaccine General Institute (Allategyorrasztási Citoanyagellenorso Intézet) (director: János H. Fráter, Dr.) and Animal Health Research Institute (Allategészségügyi Kutató Intézet) of MTA [Magyar Tudományos Akadémia -- Hungarian Academy of Sciences] (director: MESZAROS, Janos, Dr., candidate of veterinary medicine).

"Experience with a "Chinese" Strain of Lapinized Swine Fever Virus."

Budapest, Nemzeti Allatorvosok Lapja, Vol 10, No 2, Feb 63, pp 69-74.

Abstract: [Authors' English summary modified] A strain of swine fever virus obtained from China inoculated into rabbits allowed the production of a vaccine from the spleen of rabbits which caused no clinical symptoms upon injection into pigs but produced full immunity by the fifth day after vaccination. The favorable results led to large-scale field trials which are in progress. Of 16 references, 12 are Hungarian, the rest is Western.

b/1

18

SIMONYI, Elisabeth [Simonyi, Erzsebet]; BOGNAR, K.; KUCSERA, G.; REGOS, J.

Comparative studies on the potency of different crystal-violet  
swine-fever vaccine batches. Acta veter Hung 14 no.1:51-55 '64.

1. State Institute for the Control of Veterinary Serobacteriological  
Products, Budapest. 2. Director, State Institute for the Control of  
Veterinary Serobacteriological Products, Budapest (for Simonyi).

BOGNAR, Katalin

On random sets. Mat kut kozl MTA 7 series A no.3:425-440 '62.

1. "A Magyar Tudomanyos Akademia Matematikai Kutato Intezetenek  
Kozlemenyei" technikai szerkesztoje.

Brilliant yellow, a new potentiometric adsorption indicator  
[L. Horaček, L. Václavík, *Mater. Techn.*,  
1963, No. 7, pp. 107-116; *Chem. Abstr.*

Brilliant yellow (diazo diphenyl stilbene disulfonic acid) proved to be an excellent adsorption indicator useful in the potentiometric determination of halogen and thiocyanate ions due to its sharp colour change and its sol-stabilizing properties. Chloride, bromide and thiocyanate ions are titrated in neutral or weak acid media (above pH 2), the colour changes at the end point are, from lemon yellow to violet resp. to orange. Chloride ions are measured in a 50% aqueous ethanol solution because in a pure aqueous solution the colour change occurs before the point of equivalence is reached. The determination of iodide ions is carried out in neutral or basic media (in the presence of ammonium hydroxide) below pH 11, the colour changes observed are, from lemon yellow to orange resp. from orange to violet. Volumetric solutions of 0.1 M are generally employed for the titrations but they may be used in every concentration down to 0.005 M. Foreign salts interfere only with the chloride determinations. Error of the method is  $\pm 0.3\%$ .

RADVANYI, Antal, dr.; SZEMERE, Albert; BOGNAR, Lajos

Incentive awards and the sphere of activity. Ujít lap 15 no.9:5  
10 My '63.

1. MELYEPTERV-(for Radvanyi). 2. LAKOTERV (for Szemere).  
3, Budapest I-XII.ker.Kozert Vallalat ujitasit eloadoja.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205920001-2

BOGNAR, Laszlo; ROKA, Terez

Schlieren and sandstone contacts of the Nagybatony  
andesite veins. Foldt kozl 94 no.1:82-88 Ja-Mr '64.

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205920001-2"

SZOLNOKI, J.; BOGNAR, L.

— Experiments on the biogenic oxidation of some sulphide ores.  
Acta geol Hung 8 no.1/4:179-187 '64.

1. Geochemical Research Laboratory of the Hungarian Academy of Sciences, Budapest.

Boguslav M. Ein endliches B ist die direkt summe von

Let  $R$  be the direct sum of groups  $R_\alpha$ , where each  $R_\alpha$  is isomorphic to the additive group of rational numbers and  $\alpha$  ranges over an index set  $K$  of power  $\leq \aleph_0$ .

For each  $\alpha \in K$  let  $M_\alpha$  be a set of prime numbers with the properties. a) the prime  $p$  belongs to no  $m_{\alpha_1}, \dots, m_{\alpha_n}$ . b) for each pair  $\alpha, \beta$  ( $\alpha \neq \beta$ ) in  $K$ , there exists a prime number  $q$  which lies in  $M_\alpha$  but not in  $M_\beta$ .

Now choose a fixed non-zero element  $e_\alpha$  from each  $R_\alpha$ .

Then  $C = \{e_\alpha | \alpha \in K\}$  is an infinite group generated by the elements  $e_\alpha$  and  $e_\alpha + e_\beta$  for all pairs  $(\alpha, \beta)$  over  $K$ . It follows

Bogdár, M.  
over the non-negative integers,  $\alpha$  and  $\beta$  range over  $\mathbb{A}$ .  
Then the author shows that  $G$  yet rank  $m + n - 1$ .

Now it is sufficient to prove

that  $G$  has a kind of  $\mathbb{A}$ -basis, i.e., there exists a set  $\{G_i\}_{i \in I}$  of elements of  $G$  such that

$\sum_{i \in I} G_i = G$  and

$\sum_{i \in I'} G_i \neq G$  for all  $I' \subset I$ .

BOGNAR, M. (Budapest)

n-dimensional edged pseudo multitudes in (n - 1)-dimensional Euclidean spaces. I. In German. Acta mat. Hung. 10 no.3/4:363-373 '59.  
(REAI 9:5)

(Topology)

(Spaces, Generalized)

(Abelian groups)

84763

S/042/60/015/003/005/016XX  
C111/C222

16.2200

AUTHOR: Bognar, M. (Budapest)

TITLE: Imbedding of Locally Compact Topological Abelian Groups Into an Euclidean Space

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol.15, No.3, pp.133-136

TEXT: Theorem: Every n-dimensional locally compact topological Abelian group with a countable base can be imbedded into an (n+2)-dimensional Euclidean space.

Since the group  $\Gamma$  of characters of a locally compact topological group G with a countable base is again a locally compact topological Abelian group with a countable base, the theorem can be written in the following equivalent version:

The space of the group of characters  $\Gamma$  of each discrete countable Abelian group G of rank n ( $n \geq 1$ ) can be imbedded into an (n+2)-dimensional Euclidean space.

This version of the theorem is proved with the aid of a construction similar to the construction of van Dantzig (Ref.1) for the realization of the solenoid of Vietoris (Ref.4) in the  $E_3$ .

Card 1/2

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C111/C222

Imbedding of Locally Compact Topological Abelian Groups Into an Euclidean Space

Then the proof of the initial theorem follows from the theorem of Pontryagin, that every locally compact Abelian topological group  $\Gamma$  with a countable base is the direct sum of two groups  $V$  and  $\Gamma_1$ , where  $V$  is a factor group and  $\Gamma_1$  has a compact subgroup  $\Gamma_2$  so that the factor group  $\Gamma_1 - \Gamma_2$  is discrete and countable.

There are 4 non-Soviet references.

SUBMITTED: January 28, 1960

Card 2/2

BOGNAR, M. (Budapest)

On W. Fenchel's solution of the plank problem. Acta mat Hung 12 no.3/4:  
269-270 '61.

1. Presented by G. Hajos.

BOGNAR, Matyas, a matematikai tudomanyok kandidatusa

"Fundamentals of general topology" by Akos Csaszar. Reviewed by  
Matyas Bognar. Mat kozl MTA 12 no.4:387-394 '62.

BOSNYAK, Mihaly (Budapest); KISBAN, Kalman (Szeged); KANIZSAI, Otto  
(Budapest); CSEKE, Janos (Hodmezovasarhely); BOGNAR, Mihaly  
(Debrecen)

Forum of innovators. Ujít lap 15 no. 6:30-31 25 Mr '63.

(DODGWAR, K.

**HUNG!**

21. On the hydrogenation of thebain - A. thebain  
kibogenezisról - J. Brunda and S. Szalai. (Hungarian  
Journal of Chemistry - Magyar Kimai Folyoirat - Vol.  
56, 1953, No. 11, pp. 321-325, 7 figs.)

Experiments have been made for elaborating the best method of producing dihydrothebain. The reduction products obtained from thebain by chemical reducing agents and the mechanism of the transformations occurring during the chemical reduction of thebain are described. Investigation of the factors influencing the course of catalytic reduction have led to the conclusion that the best yields of dihydrothebain can be obtained if hydrogenation is carried out under the following conditions: (1) The mixture used for hydrogenation must contain 0.08 " free hydrochloric acid; (2) Pure hydrochloric thebain must be used as a starting material; (3) Hydrochloric thebain must be suspended in such quantity of water that the entire amount becomes dissolved only at the end of hydrogenation; (4) The rate of hydrogen absorption must be high, its optimum value about 60 l hydrogen per hour for 1 kg of thebain base. Total hydrogen absorption must be 1.36 to 1.39 mols; (5) Palladium carbon (10%) is the most suitable catalyst of which 0.1% calculated on the amount of thebain present, must be used; (6) The temperature of the hydrogenation mixture must not exceed 40° C.

M. APW

Preparation and interconversions of poppy alkaloids  
Rosa Bogar, Bell, inst. chiv. anal. culture sci. 2, 163-76  
(1927) (see Newman). --The method of Kubay (C.A. 29,  
1935) for the prepn. of morphine sulfate from poppy heads  
was supplemented so that codeine, thebaine, and narcotine  
could also be sep'd. The benzene soln. after the pptn. of  
morphine constg. the remaining alkaloids was evapd. in  
vacuo, the residue taken up in  $H_2O$ , and acidified with  $H_2SO_4$ ;  
the narcotin sulfate pdld. out. The soln. was then made  
alk. to ppt. the other 2 alkaloids; narcotine was crystd.  
from  $B(OH)_3$  and the soln. treated with tartaric acid to give  
thebaine bitartrate. The reduction of thebaine was also  
studied, and the best yields were obtained under the follow-  
ing conditions. The thebaine must be as pure as possible

and suspended as the HCl salt in a soln. 0.05N acid; the  
hydrogenation must be carried out rapidly at temps. below  
40° and in the presence of 10% Pd on charcoal. G. M.

1ST AND 2ND ORDERS	PROCESSES AND PROPERTIES INDEX		3RD AND 8TH ORDERS
<p>Synthesis of <math>\beta</math>-asebotin. Géza Zemplén, Reind Bogdán, and Kurt Thiele (Univ. Budapest). <i>Ber.</i> <b>77B</b>, 446-81 (1944).—The synthesis of natural asebotin was recently reported (<i>C.A.</i> <b>37</b>, 4717). Tamura (<i>Bull. Chem. Soc. Japan</i> <b>11</b>, 781-6 (1936), and <i>C.A.</i> <b>31</b>, 6719) has designated as isobomogenin the aglycon, 2'-methylphloracetin, <math>\beta</math>-HO-C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>CH<sub>2</sub>COR (I) (R = 2,4,6-MeO(HO)<sub>2</sub>CaH<sub>2</sub>), or the isomeric glycoside, not yet found in nature. Since the glycoside (II) now synthesized by Z. and coworkers has a structure (I, R = 2,4,6-MeO(HO)<sub>2</sub>CaH<sub>2</sub>OCH<sub>3</sub>) analogous to that of <math>\beta</math>-phlorizin, they suggest the name <math>\beta</math>-asebotin for it. The synthesis of II by coupling I with acetobenonoglucone seemed no more promising than that of phlorizin from phloracetin, and accordingly 3-methylphloracetophenone, 2,4,6-MeO(HO)<sub>2</sub>CaH<sub>2</sub>COMe (III) was selected as starting material. 8,8-Dinitroisole (10 g.), hydrogenated in 250 cc. warm alc. with about 0.8 g. Pd-charcoal, took up 7 l. H in 25 min., and when filtered and immediately satd. cold with HCl gas gave 92% 3,6-diaminoisole-2HCl, m. around 240° (decompn.); 15 g. of this, in 6 l. water which had been boiled out and satd. cold with CO<sub>2</sub>, was refluxed 9 hrs. in a current of CO<sub>2</sub>, then cooled, <i>in situ</i>, extd. 4 times with ether (one 80- and three 40-cc. portions), and dried with Na<sub>2</sub>SO<sub>4</sub>, giving 58.3% 3,6-(HO)<sub>2</sub>CaH<sub>2</sub>OMe, m. 71°. This ether (5.1 g.), 3 g. MeCN, and 3.2 g. fused ZnCl<sub>2</sub> in 100 cc. alc. alc. in ice was satd. with dry HCl gas, allowed to stand in the ice box 48 hrs., and filtered, and the ketimide-HCl was boiled 50 min. in 300 cc. water, giving, after 48 hrs., 87% of III, m. 203° (2 g.) and 1.2 mol. acetobenonoglucone in 24 cc. acetone in ice, treated with 0.1 cc. of 97% NaOH added in small portions, evapd. <i>in vacuo</i> after 24 hrs., extd. 8 times with water, and crystd. from hot MeOH gave 1.4 g. of III <i>d</i>-tetraacetylglucoside (IV), m. 168°, [α]<sub>D</sub><sup>25</sup> -42.2° (pyridine); acetylation of this with Ac<sub>2</sub>O-C<sub>6</sub>H<sub>5</sub>N at room temp. gave the <i>d</i>-acetate, prisms, m. 101-2°, [α]<sub>D</sub><sup>25</sup> -34.0° (pyridine). III <i>d</i>-glucoside (0.12 g. from         </p>			
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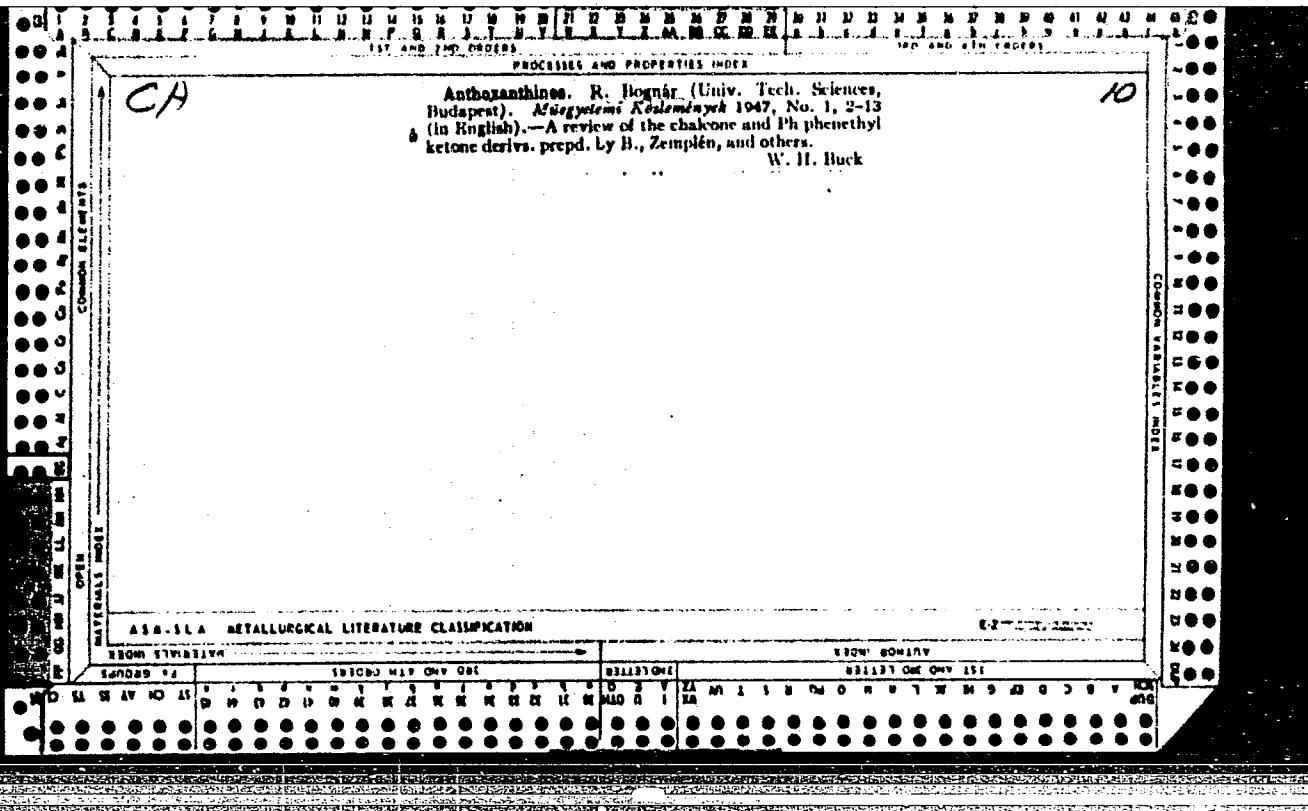
  

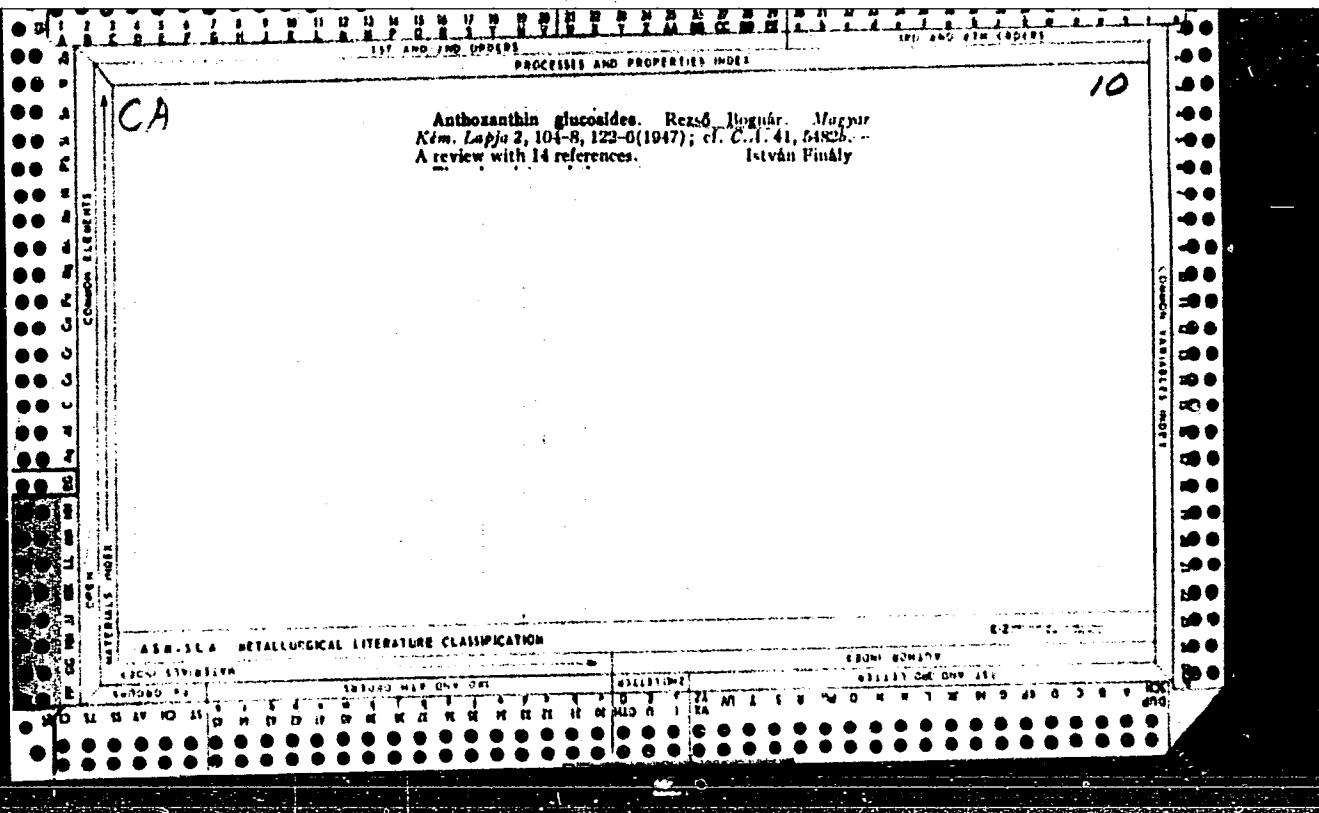
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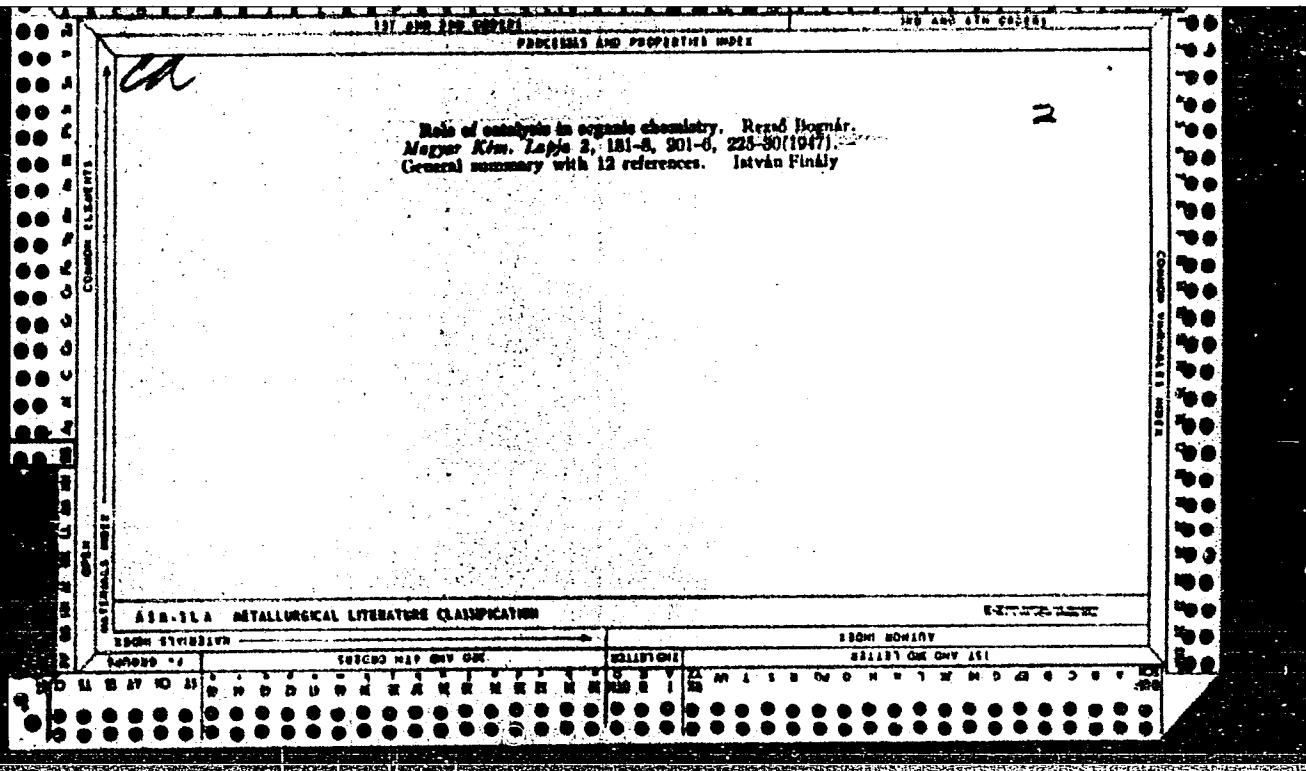
0.5 g. IV shaken 15 hrs. in 25 cc. water sdd. at room temp. with Ba(OH)<sub>2</sub>, long leaflets from water, m. 215°, [α]<sub>D</sub><sup>25</sup> -50.4° (pyridine). IV (1.4 g.), stirred with alc., treated in ice with 7.5 cc. of 60% KOH, stirred 3 min., to complete the sapon., then treated with 1.3 mols. p-HOC<sub>6</sub>H<sub>4</sub>CHO and 2 cc. more KOH, shaken 24 hrs., allowed to stand 60 hrs., dil. with an equal vol. of water, made faintly acid in ice with 10% HCl, filtered after 24 hrs., washed with water, dried (1.2 g.), and cryst. from 40 cc. water + 6 cc. alc. gave 2'-methoxy-4',6'-dihydroxyphenyl-4'-hydroxy-styryl ketone 4'-glucoside (2'-methylnaringenin 4'-glucoside) (V), crystals with 2.6 H<sub>2</sub>O lost in vacuo at 100°, becomes glassy 182° m. 199° (203-3° when anhyd.). [α]<sub>D</sub><sup>25</sup> -38.6° (hydrated, in pyridine); 0.2 g. refluxed 2 hrs. in 2% HCl gives 0.1698 g. 5-methylnaringenin (5-methoxy-4',7-dihydroxyflavone) (VI), turns brown 248° m. 263° (from alc.), whose diacetate, prep'd. with Ac<sub>2</sub>O-C<sub>6</sub>H<sub>5</sub>N at room temp., m. 178° (from alc.). V (0.6 g.) in 15 cc. alc. added to 10 cc. of 98% alc. contg. 0.9-0.3 g. Pd-charcoal and previously sdd. with H gave on hydrogenation 0.4 g. II, long needles with 1 H<sub>2</sub>O, sinters 125°.

in. 141°, loses its water at 101° in vacuo, gives a red color with FeCl<sub>3</sub>, [α]<sub>D</sub><sup>25</sup> -70.8° (96% alc.). [α]<sub>D</sub><sup>25</sup> -51.1° (pyridine); both rotations for the hydrated form; hexa-acetate, tablets from aq. MeOH, m. 123°, gives a neg. FeCl<sub>3</sub> reaction, [α]<sub>D</sub><sup>25</sup> -30.0° (pyridine). Refluxed 2.5 hrs. in 1% HCl, 0.2444 g. II yields 0.1101 g. I, prisms from aq. MeOH, gives a red FeCl<sub>3</sub> reaction. Although 2,4,6-(HO)<sub>3</sub>C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>Me does not condense to aldehydes with aromatic aldehydes in alc. soln., its 2 Me ether (III) (0.6 g.) in 1 cc. EtOH and 3.6 cc. of 60% KOH shaken 2 hrs. with 0.24 g. 2-HOC<sub>6</sub>H<sub>4</sub>CHO and 1.2 cc. KOH and allowed to stand 2.5 days gives 0.58 g. 2-methoxy-4,6-dihydroxyphenyl-4-hydroxystyryl ketone, yellow needles m. 235°, loses its water at 100° in vacuo, is converted into VI by boiling 2% HCl and hydrogenated to I with Pd-charcoal.

C. A. R.







C.A.

2

| Valency in modern chemistry. VII. Valency, ad-  
| sorption, chemisorption. Rezső János. *Magyar Kém.  
Lapja* 4, 6-14 (1949); cf. C.A. 43, 7764a.—A review.  
I. Finály

CR

Two new isoflavone glycosides of *Sophora japonica*.  
Kazuo Bognár (Univ. Tech. Sci., Budapest). *Magyar Kém. Lapjai* 4, 519-23 (1940).—*Sophora flavonolobis* could not be isolated from the fruits of *Sophora japonica* grown in Hungary. Another new glycoside, sophorisoride (I), discovered in 1938 by Charente and Rabaté (*C.A.* 33, 6347\*) could be sepd. from the fruits in 2% yield. While the structure of this compd. was being examined, a new isoflavone glycoside was found: sophorisoride (II). On hydrolysis, both I and II produced genistein. Methylation was used to det. which OH group serves as a link between the sugar component and the flavone or isoflavone. It could not be methylated in the usual manner with  $\text{CH}_3\text{N}_3$ , since it is insol. in any of the usual solvents. Both I and II were methylated by  $\text{Mg}(\text{OEt})_2$  at room temp. in the presence of alkalies. The hydrolysis of the products obtained gave dimethylgenistein, identified as the 8,7-coupled. (III). This shows that in both I and II the sugar component is linked to the flavone on the 4'-OH group. No such link has been previously observed in any natural flavone, flavonone, iso-

flavone, or anthocyanin glycoside, where generally the OH groups in the 7- or 3-positions serve as links. III with  $\text{H}_2\text{O}_2$  gave  $\mu\text{-HOOC}_2\text{H}_2\text{CO}_2\text{H}$ . Alkalies changed III to 6-hydroxyphenyl. The following structures were proved: genistein-glucos (genistein- $\beta$ -glucoside) for I and genistein-rhamnoglucos (genistein 4'-rhamnoglucoside) for II.

1. Finally

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CIA-RDP86-00513R000205920001-2

C.A.

Walency, adsorption, and chemisorption. *Késze Bogdán.*  
J. Polym. Tech. 4, No. 1, 51-8(1946).—A review  
István Finály

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CA

The life and work of V. G. Markovnikov. Renzo Bognar  
[Univ. Tech. Sci., Budapest]. Alagyar Körzeti Könyvtár  
1973. 46 (1971). A detailed bibliography.

APPROVED FOR RELEASE: 06/09/2000

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CH

10

The oxidation of sugar alcohols by chlorine. Recs. Bognár (Univ. Tech. Sci., Budapest), Magyar Kém. Polgáriat 50, 214-17, 351-2 (1950).-- The conversion of aldo and keto sugars to sugar alcs. is relatively easy, but the oxidation of sugar alcs. to aldo and keto sugars is very difficult. Various known methods are discussed. Expts. were conducted on oxidation by means of Cl. E.g., 5% manitol was treated with gaseous Cl at 0 K until the wt. increase of the liquid was equal to the wt. of the manitol, and the greenish yellow, jellylike ppt. kept in a refrigerator overnight and several days at 10-15°. Samples taken during storage showed an increase in the content of reducing sugars and in rotation. The max.,  $[\alpha]_D = -30^\circ$ , was observed after 5-6 days. Titration according to Bertrand and Willstätter-Schudel showed that 35-40% of the sugars in the product were aldoses and 80-85% ketoses (D-mannose and D-fructose). The treatment of the product under suitable conditions with PhNNH<sub>2</sub> gave mannose phenylhydrazone; heating 1 g. reducing sugar yielded 1.3 g. of an oxazone mixt. partially sol. in KOH. In the Cl treatment of sugar alcs. both ends of the 6 C-atom chain are oxidized. This oxidation is rather slow and can be stopped at any given stage, furnishing a possible prepn. of aldoses and ketoses. 15 references.

István Finlay

CA

Synthesis of antibiotics and antibiotics. (Karl Zimpfer  
and Romeo Rappoer (U.S.R. Tech. Sci., Budapest, Hungary).  
Acta Chim. Hung. 1, 265-281 (in German).—Molluscicid  
with the structure of a 6-oxo-glycosidic-glycoside was

synthesized by the Hg acetate method. An antibiotic  
molluscicid (SIL 4, 446 F-1, 100 mg/g) was obtained.  
174.6 Hg acetate were mixed in 50 ml. Cellophane bag, the  
stomach was sliced 6 mm, washed with water, dissolved by C.  
crocus, to an oily mass in water, heated on the water bath,  
with 22 g AgOAc and 100 ml. HgO, poured into 500 ml.  
water, filtered, the ppt. treated with 120 ml. CHCl<sub>3</sub>, the CHCl<sub>3</sub>  
was removed, the ppt. washed with CHCl<sub>3</sub>, the CHCl<sub>3</sub>  
was removed, the water was removed, the residue dissolved in EtOH and neutralized with alkali carbonate,  
then dissolved in EtOH and the filtrate recovered (I), m. 106°. [α]<sub>D</sub> 0° (in  
CHCl<sub>3</sub>). Variation in the conditions resulted uniformly  
in terms of substances having the structure of a 6-O-  
phenylglycoside-phosphate (II), m. 174.6°, [α]<sub>D</sub> 20.7° (in H<sub>2</sub>O).  
An intermediate, m. 100-2°, [α]<sub>D</sub> 64.5° (in CHCl<sub>3</sub>),  
was obtained in 72.5% yield by treating 25.1 in 5 ml. abs.  
CHCl<sub>3</sub> with 0.5 g TGA, in 2 ml. CHCl<sub>3</sub> 3 hr., pouring the  
water, and the aqueous layer, the CHCl<sub>3</sub> phase, evap-  
ing, and "recycling" the residue from abs. EtOH.  
An intermediate, m. 100-1°, [α]<sub>D</sub> 112.7° (in CHCl<sub>3</sub>),  
was obtained in 70.5% yield by treating 25.1 in 5 ml. abs.  
CHCl<sub>3</sub> with 5 g TGA, in 4 ml. CHCl<sub>3</sub> 6 hr. at room temp.,  
pouring the water, and the CHCl<sub>3</sub> layer,  
evap-  
ing, and "recycling" the residue in 5 ml. CHCl<sub>3</sub>.  
Adding 3 ml. HgO, and keeping 20 min. in a refrigerator,  
and 100 ml. HgO, and keeping 1 hr., the CHCl<sub>3</sub> phase,  
was removed, the residue (III), m. 145°, [α]<sub>D</sub> -10.8° (in  
CHCl<sub>3</sub>), was obtained in 0.64 g yield by treating 1.5 g  
phenylglycoside with 0.5 g AgCO<sub>3</sub> in 15 ml. abs.  
MeOH 4 hr., filtering, evap. the filtrate, and dissolving  
the residue in 5 ml. hot EtOH. Glycosidomannose (active  
component of glycoside-phosphate, m. 177°, [α]<sub>D</sub> 102.5°  
(in CHCl<sub>3</sub>), was obtained in 0.74 g yield by adding 0.2 g  
a-mannosidase, 71.6 F-1, 1-chloro-2-nitroethane,  
to a phenylglycoside, 71.6 F-1, allowing to  
stand 21.9 F. Hg acetate to 100 ml. Cellophane at 50°, allowing to  
stand at room temp. 3 hr., removing traces of Hg by  
washing with water, dissolving the soot, evap., in acetone,  
extracting the oily product by treatment with 200 ml.  
water, 10 g AgOAc, heating 1 hr. on the water  
bath, adding 575 ml. water, filtering, washing the CHCl<sub>3</sub>  
layer, evap., in acetone, dissolving the residue (SIL 4, 446 F-1)  
100 ml. abs. MeOH, adding 110 ml. 0.5 M NaOMe with  
cooling by ice, in small portions, dissolving the mixt. after  
30 min. in 100 ml. water, neutralizing, clarifying by active  
carbon, 7.26 g mannose, and dissolving the residue in 100 ml.  
C. evap. to an oily, and dissolving the residue in 100 ml.  
water. This 446 soot, dissolved in 100 ml. 0.5 M alkali, and  
containing 7.25 g mannosecarboxylic acid, was repeated fermenta-  
tion treated in a soot. (contg. 2.76 g mannosecarboxylic  
acid, 18.02 g mannose, calc. on the basis of reduction capacity of the  
soot, and reduction of the soot). Repeated column charge of the  
soot, gave a solid contg. 12.95 g mannosecarboxylic, 2.34 g  
mannose, and 1.46 g methionine. When this soot, was  
dissolved in a glucose soln., under actual fermentation, it  
underwent removal of mannosecarboxylic, repeated fermenta-  
tion treated in a soot. (contg. 9.17 g methionine. Acetylation of  
this soot, by acetyl COCl and molten NaOMe on the  
water bath, gave a powder, m.p. 70.4° (in CHCl<sub>3</sub>), which  
after repeated recryst. from MeOH gave 0.78 g pure  
methionine.

*(Handwritten)*

Occurrence and isolation of rutin from *Oxybrychis sativa*.  
R. Bogner (Univ. Debrecen, Hung.). Research (London) 5,  
JAI-4 (1949).—The fodder plant *Oxybrychis sativa* is a rutin  
source comparable to buckwheat. Alc. extrn., benzene  
washing, vacuum concn., and recrystn. yield 0.3-0.4%  
rutin, identified as the trihydrate and by acid hydrolysis to  
quercetin, glucose, and rhamnose. Fermentation and pptn.  
of the lead salt are not necessary. Ruth C. Pierle

BOGNAR, R.; NANASI, P.

Nigrogen glucosides. I. P-aminobenzene sulfonic acid amide-glucosides. p. 178.

(Magyar Kemiai Folyoirat, Budapest, Vol. 59, no. 6, June 1953)

SO: Monthly list of East European Accessions (EEAL), LC Vol 4, No. 6, June 1955, Uncl

BOGNAR, R.; NANASI, P.; NANASI, MRS. P.

Nitrogen glucosides. II. P-aminosalicylic acid glucosides. p. 185. (Magyar Kemiai  
Folyoirat, Budapest, Vol. 59, no. 6, June 1953)

SO: Monthly list of East European Accessions (EEAL), LC Vol 4, No. 6, June 1955, Uncl

Bognár, R.

2 May

HUNG.

15. Reactions of phenyl urea and symmetric diphenyl urea derivatives — Fenikarbamid és szimmetrikus diszenilkarbamidsármártók diahálításai — R. Bognár, I. Farkas and I. Békési. (Hungarian Journal of Chemistry) — Magyar Kémiai Folyóirat — Vol. 39, 1953, No. 10, pp. 289—295, 3 tabs.)

Monosubstituted aromatic urea derivatives are transformed at temperatures near their melting points to symmetric diphenyl urea derivatives. It was found that the transformation is facilitated by first class substituents in the para position whereas substituents of the first and second class in the meta position or substituents of the first class in the ortho position were ineffective. Yields in monosubstituted urea derivative are raised by increasing the amount of urea used in the fusion of sulfanilic amide with urea — in the presence of hydrochloric acid — with the simultaneous decrease of the disubstituted product. Symmetrically substituted aromatic urea derivatives and urea fused together yielded the corresponding monosubstituted aromatic urea derivatives. Several monosubstituted aromatic urea derivatives were produced by these reactions differing in their melting points from the compounds known thus far. Possibly these new compounds are the corresponding isomorphous or diastereoisomeric derivatives. The first stage of both reactions is doubtless dissociation and the reaction of the amine and isocyanate formed in the second stage depends on the circumstances of the reaction mixture.

BOGNAR, Rezso Professor

G.D., A.I.

"Professor Rezso Bognar, corresponding member of the Bulgarian Academy of Sciences, was a guest of Bulgarian Academy of Sciences"" (p.93) PRIRODA (Bulgarska Akademija Na Naukite) Sofiya Vol 2 No 5 Sept/Oct 1953

SO: East European Accessions List Vol 2 No 8 Aug 1954

*D-8N2 K*

*Transformation of monoarylated and symmetrical diarylated urea derivatives in Urea, I, Diureas, and*  
*R. W. Raiford, Jr.*

changes in the starting material are observed. Thus, diureas formed from monosubstituted urea obtained by heating  $p$ -nitrophenylurea at 200° give the following results:

14.4;	207, 60, 0.0, 37.8; $p$ - $H_3N\text{SO}_2\text{C}_6\text{H}_4$ ; 10*, 30, 37.8,
59.1;	202, 30, 0.0, 80.2; $\alpha$ -Tolyl; 10*, 30, 29.2, 52, 55,
Tolyl; 10*	30, 0.0, 98.7; $p$ -C <sub>6</sub> H <sub>5</sub> C <sub>6</sub> H <sub>4</sub> ; 10*, 30, 0.0, 100;
$p$ -C <sub>6</sub> H <sub>5</sub> C <sub>6</sub> H <sub>4</sub> ; 10*	60, 30, 41.5; $p$ -Phenyl; 10*, 30, 0.0, 100.

Conversely, sym diarylureas heated with 1 mole of urea give the monoaryl ureas, thus, diaryl urea temp., time of fusion (min.), % starting material converted (% monosubstituted urea obtained): *di-PA*, 200°, then 170°, 30, 18.3, 24.7%; *di-(m-H<sub>3</sub>N<sub>2</sub>SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>)*, 180-200°, 30, 52.3, 21%; *di(p-H<sub>3</sub>N<sub>2</sub>SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>)*, 200° (then 170-80°), 30, 12, 72.4%; *di-p-tolyl*, 190-200°, 30, 58.6, 30.6%; *di(p-C<sub>6</sub>H<sub>5</sub>C<sub>6</sub>H<sub>4</sub>)*, 200-10°, 30, 50, 19.3%; *di(p-C<sub>6</sub>H<sub>5</sub>C<sub>6</sub>H<sub>4</sub>)*, 210° (then 10°, 200°), 60, 12.5, 37.7 ( $p$ -O<sub>2</sub>N<sub>2</sub>C<sub>6</sub>H<sub>4</sub>N<sub>2</sub>I<sub>2</sub> is the product). Products marked (\*) m. 15-20° lower than expected and are thought to be related to isoureas (Seiberlich and Campbell, *J.A.* 47, 270(g)). Mechanisms are postulated.

R. W. Raiford, Jr.

BORNHAR, R.

*N*-Substituted glycosylamines derived from sulfanilamide and *p*-aminosalicylic acid. R. Bornhar and F. Nádasl (Univ. Debrecen, Hung.). *J. Chem. Soc.* 1953, 1703-8. — Although glycosylated sulfonamides are not distinctly superior to the free sulfonamides, their greater solv. in H<sub>2</sub>O is of interest. Chemically they are of interest because of the possibilities of isomerism. A number of *N*-arylglycosylamines derived from sulfonamides, and derivs. thereof, and 4,2-H<sub>2</sub>N(HO)C<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H (I), together with the Me, Et, and Pr esters of the latter, are described. The methods of prepn. are: (A) by direct condensation of the sugar and sulfonamide in a solvent, (B) fusion of the sugar and sulfonamide, (C) condensation of the sulfonamide with acetyl bromoglucone, and (D) condensation of the fully or partly acetylated sugars with the sulfonamide or with I. The following *N*(*p*-sulfamoylphenyl)glycosylamines are described (glycosylamine component, m.p., solvent of crystn., rotation in C<sub>6</sub>H<sub>6</sub>N unless otherwise stated, and method of prepn. given): L-arabinosylamine, 101°, H<sub>2</sub>O, 42.7° (*c* 0.9, 50% aq. C<sub>6</sub>H<sub>6</sub>N), A; D-xylosylamine, 168-9°, 50% aq. EtOH, -62.3° (*c* 0.5), A; D-galactosylamine-H<sub>2</sub>O, 174-5°, H<sub>2</sub>O-MeOH-EtOH 1:20:10, -97° (*c* 1.0), -90° (*c* 1.8, H<sub>2</sub>O), B; D-galactosylamine, 171-4°, 75-80% aq. EtOH, -110° (*c* 1.0), B; D-mannosylamine-H<sub>2</sub>O, 104°, 70% aq. EtOH, -180° (*c* 1.0), A; maltosylamine, 212-14°, 80% aq. EtOH, -50° (*c* 0.9), A; lactosylamine-H<sub>2</sub>O, 210-12°, 83% aq. EtOH, -69° (*c* 1.7), -70° (*c* 1.8, H<sub>2</sub>O), B; cellobiosylamine-4H<sub>2</sub>O, 215-10°, 83% aq. EtOH, -81° (*c* 0.9), -88° (*c* 0.9, H<sub>2</sub>O), B. Sulfanilamide with acetobromoglucone gives 2 anomeric forms, separable by fractional crystn. from 96% EtOH: *N*(*p*-sulfamoylphenyl)-*D*-D-glucosylamine 2,3,4,6-tetraacetate, m. 204° (from EtOH), [α]<sub>D</sub><sup>25</sup> -81° (*c* 1.0, C<sub>6</sub>H<sub>6</sub>N), [α]<sub>D</sub><sup>25</sup> -50.5° (*c* 1.7, CHCl<sub>3</sub>), and the α-D-isomer (II), m. 204-5° (decompn.), [α]<sub>D</sub><sup>25</sup> 203 (*c* 1.2, C<sub>6</sub>H<sub>6</sub>N) [α]<sub>D</sub><sup>25</sup> 107 (*c* 0.5, CHCl<sub>3</sub>). Deacetylation of II furnishes *N*(*p*-sulfamoylphenyl)-D-glucosylamine (III), apparently the *β*-form, m. 204° (decompn.) (from 90% aq. EtOH), [α]<sub>D</sub><sup>25</sup> -117° (*c*

0.9, C<sub>6</sub>H<sub>6</sub>N), [α]<sub>D</sub><sup>25</sup> -128° (*c* 0.9, H<sub>2</sub>O). Identical with the product obtained by direct condensation of glucose and sulfanilamide. Acetylation of (+) or (-) II or of the unacetylated product gives *N*(*p*-sulfamoylphenyl)-D-glucosylamine *N,N'*,2,3,4,6-hexaacetate, m. 115° (from 25% aq. EtOH), [α]<sub>D</sub><sup>25</sup> 77° (*c* 0.9, C<sub>6</sub>H<sub>6</sub>N). D-Glucosylamine 2,3,4,6-tetraacetate and *p*-AcNH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl in C<sub>6</sub>H<sub>6</sub>N yields *N*(*p*-acetamidobenzene-sulfonyl)-D-glucosylamine 2,3,4,6-tetraacetate, m. 197-8° (decompn.) (from EtOH), [α]<sub>D</sub><sup>25</sup> 12.8° (*c* 1.0, C<sub>6</sub>H<sub>6</sub>N). By method D, *N*(*p*-sulfamoylphenyl)-cellobiosylamine heptaacetate is obtained from cellobiose heptaacetate and sulfanilamide, m. 274-3° (decompn.) (from 90% EtOH), [α]<sub>D</sub><sup>25</sup> -31.4° (*c* 1.8, in C<sub>6</sub>H<sub>6</sub>N). The following derivs. of I are described. By method A, I and D-galactose give 38% *N*(4-carboxy-3-hydroxyphenyl)-D-galactosylamine, decomp. 180° (darkening 170°) (from EtOH or MeOH), [α]<sub>D</sub><sup>25</sup> 134° (*c* 0.6, C<sub>6</sub>H<sub>6</sub>N). D-Glucose and I by a modified method A give 85% *N*(4-carboxy-3-hydroxyphenyl)-D-glucosylamine (IV), m. 142° (decompn.) (from aq. MeOH), [α]<sub>D</sub><sup>25</sup> -133° (*c* 0.8, C<sub>6</sub>H<sub>6</sub>N), λ<sub>max</sub>. 2280 Å. (ε 10520), 2380 Å. (ε 15740), 3000 Å. (ε 12440). Methylation of IV yields the Me ester, m. 187-9° (decompn.) (from EtOH), [α]<sub>D</sub><sup>25</sup> -144° (*c* 0.5, C<sub>6</sub>H<sub>6</sub>N), λ<sub>max</sub>. 2380 Å. (ε 10410), 2330 Å. (ε 19580), 3050 Å. (ε 20640), also obtained by method A with Me *p*-aminosalicylate and D-glucose. Similarly prepnd. are the Et ester, m. 187° (decompn.) (from 75% aq. EtOH), [α]<sub>D</sub><sup>25</sup> -130° (*c* 1.0, C<sub>6</sub>H<sub>6</sub>N), and the *P* ester, m. 135.7° (decompn.) (from aq. EtOH), [α]<sub>D</sub><sup>25</sup> -126° (*c* 0.9, C<sub>6</sub>H<sub>6</sub>N). By method D, pentaacetylglucose and I, or by method A, D-glucose 2,3,4,6-tetraacetate and I give *N*(4-carboxy-3-hydroxyphenyl)-D-glucosylamine 2,3,4,6-tetraacetate, m. 185-6° (decompn.) (from 50% aq. EtOH), [α]<sub>D</sub><sup>25</sup> -99° (*c* 1.0, C<sub>6</sub>H<sub>6</sub>N), -70° (*c* 1.0, CHCl<sub>3</sub>), λ<sub>max</sub>. 2300 Å. (ε 9800), 2740 Å. (ε 18760), 3020 Å. (ε 15010). Acetobromoglucone and I yield 2,3,4,6-tetraacetyl-1-(4-amino-2-hydroxybenzoyl)-D-glucose, colorless needles, m. 202° (decompn.) (from EtOH), [α]<sub>D</sub><sup>25</sup> -28.5° (*c* 1.0, C<sub>6</sub>H<sub>6</sub>N), -50° (*c* 1.7, CHCl<sub>3</sub>), λ<sub>max</sub>. 2440 Å. (ε 8240), 3100 Å. (ε 29320). Acetylation gives 80.5% 1-(4-acetamido-2-acetoxybenzoyl)-2,3,4,6-tetraacetyl-D-glucose, m. 192-3° (decompn.) (from EtOH), [α]<sub>D</sub><sup>25</sup> -40° (*c* 1.0, C<sub>6</sub>H<sub>6</sub>N), -48° (*c* 1.0, CHCl<sub>3</sub>), λ<sub>max</sub>. 2750 Å. (ε 25180).

William Bräuer

BOGNER, R.

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Organic Chemistry

*Transglucosylation of aromatic N-glucosides.* R. Bognár and L. Nemes (Chiv., Debrecen, Hung.). *Nature* 171, 475-6 (1953).—The transglucosylation of N-glucosides of primary aromatic amines is fairly easy. It is concluded that the reaction is dependent upon pH; is sometimes reversible; will proceed to completion in a few min. at low temp. with good yields, is really a transglucosylation rather than a 2-step hydrolysis and redistribution, reglucosylation, and that the tetracetylglucosyl derivs. also react. The products synthesized and yields (%) are listed: sulfanilamide N<sup>t</sup>-glucoside, 60-97; *p*-nitroaniline glucoside 41-90; *m*-nitroaniline glucoside 58 and 78; sulfanilamide N<sup>t</sup>-tetraacetylglucoside (isomeric mixt.) 58 and 60. Various solvents, as 83-100% EtOH and 83-100% MeOH were used. The catalysts were abs. and concd. HCl and NH<sub>4</sub>Cl.

Aaron Miller

BOGNAR, R.

HUNGARY/Organic Chemistry. Natural Compounds and Their  
Synthetic Analogs.

G

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4803.

Author : Bognar, R. and Somogyi, L.

Inst :

Title : The Oxidation of Sugar Alcohols with Chlorine. III.  
The Isolation of Aldoses in the Form of Glycosyl  
Anines.

Orig Pub: Vegyipari Kut Int Koesl. 4, 179-182 (1954) (in  
Hungarian with summaries in German and Russian)

Abstract: The oxidation of mannitol (I) with Cl<sub>2</sub> in aqueous  
solution gives a mixture containing 30.6% mannose  
(II) (the total sugar content of the solution is  
calculated on a glucose base); the yield of II  
is 18-21% (based on I). A better method of ob-

Card : 1/2

HUNGARY/Organic Chemistry. Natural Compounds and Their  
Synthetic Analogs:

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4803.

taining aldoses is the synthe synthesis of aryl-glycosyl amines. II is isolated in 40% yield in the form of N-mannosyl-p-toluidine (based on the total sugar content); the yield based on I is 25-28%. For Communication II see A Magyar Tud Akad. Kemini Tud Ost Koesl, 1, 24 (1951). -- From a summary by the authors.

Card : 2/2

✓Synthesis of sophoricoside, one of the abietane-type glycosides of *Sophora japonica* (L.) Koschnick (1951).  
Hung, 4, 383-92 (1951) - in English.

1954 518 -Geinstein, J.; Baker and Robinson, J. C.  
sophoricoside (II), which has the same structure as that of I. The 7-OH group is the most reactive, the 5-OH the next, the 4'-OH the least. Treatment of I with EtOH and 10%  $\text{H}_2\text{SO}_4$  at 100°C gave II. Treatment with  $\text{O}_2\text{NC}_6\text{H}_4\text{CH}_2\text{Br}$  in 20%  $\text{H}_2\text{O}_2$  at 100°C gave from the still warm solution 0.45 g of 7-( $\beta$ -nitrobenzyl)ether of I, m. 212-14°, and after 1 day 3 g of 7-( $\beta$ -nitrobenzyl)ether (III) of I, m. 221-2° (from  $\text{H}_2\text{O}_2$  and benzene). A derivative, m. 230-1°; 4',5-di-Ac-glycoside, was synthesized II from I, therefore the 5-OH group must be protected by a group easily removable after the glycosylation of the 4'-OH without splitting the linkage. Thus III offered that protection. The structure of III was confirmed (I) by nitrobenzylating 10 g of II as I above, giving 3.7 g crude 7-( $\beta$ -nitrobenzyl)ether of II, m. 221-2°, which passed through its pentanacetate IV, m. 230-1°, in 80% yield. (2) by treatment of II with 10 ml. EtOH, 10 ml.  $\text{H}_2\text{O}_2$ , and 6 ml.  $\text{Pb}(\text{OAc})_4$  at 100°C, giving III; or (3) by treating 10 g of II with 10 ml.  $\text{H}_2\text{O}_2$  and 6 ml.  $\text{Pb}(\text{OAc})_4$  at 100°C, followed by  $\text{Me}_2\text{SO}_4$  on a  $\text{Hg}^+$  bath, giving III. The 7-( $\beta$ -nitrobenzyl)ether of I

H U N G S

With Pd-C catalyst to give 0.17  
201-2°, identical with an authentic sample (J. Am. Chem. Soc., 68, 6076). III (1 g.) suspended in 150 ml. acetone at 0°, 25°, adding 0.3 ml. 2.5N K<sub>2</sub>CO<sub>3</sub>, let stand 21 hrs. at 0°, 61% yield. Rechromatographed concentrated to 60 ml. and reprecipitated with 170 ml. give after 4-5 hrs. a yellow, m.p. 142°, 143°, acetylated by 10 ml. Ac<sub>2</sub>O, 10 min. at 0°, 60% yield. Nitrobenzyl ether pentaacetate VI, product IV from the natural product formed from 1.8 g. III also had m.p. 142°, 143°, in the presence of 0.4 g. Ag<sub>2</sub>O. Refluxing 70 mg. VI 5 min. with 0.35 ml. 3.8% NaOH and an additional 5 min. and neutralizing with 1 ml. HCl gave a gel, which was immediately dried and rechromatographed and regenerated with Pd-C to give 24 mg. m.p. 142°, 143°, -17.1° (c 0.6, C<sub>6</sub>H<sub>6</sub>N<sub>3</sub>), identical with

BognaR, R.

*Urea derivatives. I. Preparation and thermal conversion of monoaryl ureas.* R. Bogna, J. Parkas, and I. Baksa (L. Kováts Univ., Debrecen). *Acta Chim. Acad. Sci. Hung.* 4, 355-63 (1953) (in German; English summary).—Methods of prepn. of aryl ureas and the changes effected in monoaryl ureas by heat treatment were studied. Melting amine hydrochlorides with urea formed both mono and disubstituted ureas. When the aromatic amine and urea were melted together in the presence of HCl, an increase in the quantity of urea increased the yield of monosubstituted products and decreased the formation of disubstituted derivs.; while an increase in temp. leads to greater yields of disubstituted products. Monoaryl ureas were converted into sym. diaryl ureas at temps. near their m.p.s., the rate and degree of conversion depending also on the position and nature of the substituents in the aromatic ring. An explanation of the mechanism of the reaction is presented based on electronic considerations. The results of forming mono- and disubstituted ureas were as follows (starting amine, mole urea, mole HCl, temp. of the melt (°C.), duration (in min.), % yield monosubstituted urea, % yield disubstituted urea given): PhNH<sub>2</sub> (I), 0.5, 1, 140-50, 60, 2.6, 84.2; I, 1, 1, 140-50, 60, 19.7, 68.8; I, 2, 1, 140-50, 60, 30.0, 52.65; 4-NC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>NH<sub>2</sub> (II), 0.5, 1, 140-50, 60, 13.6, 51.0; II, 1, 1, 140-50 then 200, 60 then 20, 43.3, 32.4; II, 1, 1, 140-50, 60, 35.6, 25.9; II, 1.2, 1, 140-50, 60, 47.4, 18.9; II, 1.5, 1, 140-50, 60, 50.2, 15.7; II, 2.0, 1, 140-50, 60, 45.1, 10.8; 3-H<sub>5</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>NH<sub>2</sub> (III), 1, 1, 140-50 then 150-60, 20 then 40, 20.5, 62.1; III, 1, 1, 160-70, 60, 13.5, 69.2; 4-CIC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (IV), 0.5, 1, 170-80, 60, 84.9; IV, 1, 1, 170-80, 60, 5.97, 45.8; IV, 2, 1, 160-70, 60, 61.6, 6.2; 3-O-NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, 1.5, 1, 160-70, 120, 15.5; 4-O-NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, (V), 1.5, 1, 140-50, 60, 84 (recovered

V), —; V, 1.5, 1, 160-70, 120, 52.5 (recovered V), 16.4; V, 1.5, 1, 190-200, 120, 62.0 (recovered V), 16.2. The following prepn. is typical: urea (3.22 g.) (1 mole) in 4.55 ml. (1 mole) concd. HCl treated with 5 g. I, and the soln. heated in an oil-bath to 140-50°; after 10 min. the soln. solidified following strong effervescence. Cooling, extg. with five 25-ml. portions of hot H<sub>2</sub>O, and cooling gave 1.22 g. Ph-NHCONH<sub>2</sub> (VI), m. 147°; remaining undissolved was 3.92 g. PhNHCONH<sub>2</sub> (VIa), m. 235°. Similarly were prepnd. 3-H<sub>5</sub>NO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>, m. 180-1°, also 186-8°, and 3-H<sub>5</sub>NO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>CH<sub>2</sub>SO<sub>3</sub>NH<sub>3</sub><sup>+</sup>, m. 181° (from pyridine). Melting the monoaryl ureas gave the following results (starting compnd., temp. of treatment (in °C. above its m.p.), duration (in min.), % yield recovered monoaryl urea, % yield disubstituted urea given): VI, 10, 30, 40.6, 30.4; VI, 20, 30, 22.4, 41.2; VI, 20, 60, 33.3, 40.1; VI, 13, 120, 25.3, 53.8; 3-H<sub>5</sub>NO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub> (VIa), 10, 30, 10, 54.4; VII, 20, 60, —, 37.8; 4-H<sub>5</sub>NO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub> (VIII), 10, 30, 27.5, 48.1; VIII, 20, 60, —, 80.2; 2-MeC<sub>6</sub>H<sub>5</sub>NHCONH<sub>2</sub>, 10, 60, 20.2, 50.0; 3-MeC<sub>6</sub>H<sub>5</sub>NHCONH<sub>2</sub> (IX), 10, 30, 51.6, 31.2; IX, 10, 60, 30.0, 44.6; IX, 10, 120, 27.0, 52.3; 4-MeC<sub>6</sub>H<sub>5</sub>NHCONH<sub>2</sub> (X), 10, 10, —, 83.3; X, 10, 30, —, 98.7; 3-CIC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>, 10, 60, 20.0, 44.5; 4-CIC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>, 10, 30, —, 100.0; 4-BrC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>, 10, 10-15, 8, —, very good; 4-PhC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>, about 10, 10, —, 87; 3-O-NC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>, 10, 30, 52.6, 39.2. Melting of monoaryl ureas: powd. VI melted, held 30, 60, or 120 min. about 10°, 13°, or 20° above its m.p., the mixt. cooled, repeatedly extd. with H<sub>2</sub>O, and the water-insol. VIa recrystd. from EtOAc; the aq. exts. left 24 hrs. in the refrigerator gave recovered VI. II. Conversion of symmetrical diaryl ureas into monoaryl ureas by melting them with urea. R. Bogna and I. Parkas. *Ibid.* 369-81.—Sym.

substituted diaryl ureas (I) when melted with urea were converted into monoaryl ureas (II). The question of polymorphism and isomerism is raised to explain the difference in m.p.s. of II with the reported m.p.s. The mechanism of the reaction is discussed. The following results were obtained. [II, moles urea, temp. of the melt (°C.), % yield II, % yield recovered I given]: PhNHCONHPh, 2, 200 then 170-80, 24.7, 18.3; 2-MeC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>-Me'-2' (III), 3, 200-10 then 180-200, 43.65, 10.7; 3-MeC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>-Me'-3', 3, 200 then 140, 47.8, 24.0; 4-MeC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>-Me'-4', 2, 100-200, 30.6, 6.6; 4-CIC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>-Cl-4', 3, 200-10, 19.3, 50.0; 3-H<sub>2</sub>NO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>-SO<sub>2</sub>NH<sub>2</sub>-3', 2, 100-200, 21.0, 53.3; 4-H<sub>2</sub>NO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>-SO<sub>2</sub>NH<sub>2</sub>-4', 2, 200 then 170-80, 72.4, 12.0; 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>-NHCONH<sub>2</sub>-NO<sub>2</sub>-4', 2, 210 then 190-200, 37.4 ( $\rho$ -O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>), 18.6; 3-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub>-NO<sub>2</sub>-3', 3, 190-200, 44.4 ( $m$ -O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>), 9.3. The procedure follows: III (3.0 g.) and 2.25 g. urea melted together 30 min. in an oil-bath, the temp. of the bath held 10 min. at 200-10° then 20 min. at 190-200°, the mixt. cooled, extd. 3 times with 50-ml. portions H<sub>2</sub>O, and cooled gave 1.63 g. 2-MeC<sub>6</sub>H<sub>4</sub>NHCONH<sub>2</sub> (IV), recrystd. thrice from H<sub>2</sub>O to give pure IV, m. 178°; the water-insol. material recrystd. from EtOH yielded 0.32 g. III, m. 243°.

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BOGNER RE750

The preparation and chemical transformation of popov alkaloids. Rezo Bogner (Kecskemeti Lajos Tudományegyetem Szerves Kematalozata, Debrecen, Hung.), Magyar Tudományos Akad. Kém. Tudományos Osztályának Közleményei 5, 57-73; discussion 74-8(1954); cf. C.A. 48, 10288.  
—A review with 21 references. A. Lengyel

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Bogna 250

Reaction of flavanone and of flavan-3-ol with *N*-bromosuccinimide: a new method for the preparation of flavan-3-ol. Rezo Bogner and Miklós Károly (Kossuth Univ., C. Debrecen, Hung.) *Chemistry & Industry* 1955, 773. — *H* Treatment of flavanone with *N*-bromosuccinimide (I) gave a mixt. of flavone (II) and 3-bromo-flavanone (III). II sepd. directly from the  $\text{CCl}_4$  soln. together with succinimide and with the evolution of HBr; III was isolated from the soln., m. 120–0.5°. III was converted to II by treatment with 10% aq. alkali at room temp. in 10 min.; hydrolysis with warm 15% alkali gave 2-hydroxybifluorobutethane. Flavan-3-ol gave flavon-3-ol when treated with I in warm  $\text{CCl}_4$ . — Donald Rauenzahn

BOGNAR, R.

BOGNAR, R. RUTIN AND ITS NEW OCCURRENCE. IN GERMAN. p. 537  
Vol. 3, 1957 IZVESTILA., Sofia, Bulgaria

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